DIRECT TESTIMONY OF
J. DARRIN KAHL
ON BEHALF OF
SOUTH CAROLINA ELECTRIC & GAS COMPANY
DOCKET NO. 2010-5-G

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION.

A. My name is J. Darrin Kahl, and my business address is 1400 Lady Street, Columbia, South Carolina.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT POSITION?

A. I am employed by SCANA Services, Inc. ("SCANA Services") as Manager, Supply and Asset Management.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. I graduated from the University of South Carolina in 1991 with a Bachelor of Science degree in Accounting. Following graduation, I accepted a full time staff accountant position with an electronic security services company where, from 1991 until 1997, I held various roles within the accounting areas of audit, information technology, and financial reporting. I concluded my tenure with the company as Supervisor of Accounting and, in 1997, I joined SCANA Energy Marketing, Inc. ("SEMI") as an Energy Services Coordinator performing a variety of job functions, including tariff analysis, gas supply procurement and scheduling. In 1999, I assumed the role of Transportation Coordinator which included intrastate and interstate pipeline scheduling, producer services, and gas supply

procurement. In 2002, I accepted the position of Supervisor of Scheduling with SCANA Services where my responsibilities included supervising a team of employees who conducted nominations, scheduling, and balancing on interstate pipelines for all of the SCANA gas subsidiaries. From 2003 through 2007, I assumed the position of Manager of Operations & Gas Accounting, where I was responsible for the day to day operations of gas scheduling on interstate pipelines and gas accounting. Currently, I am the Manager of Supply and Asset Management with SCANA Services, where I manage a team of employees responsible for natural gas procurement, transportation, scheduling and balancing.

Q. PLEASE DESCRIBE YOUR DUTIES RELATED TO NATURAL GAS PROCUREMENT AS MANAGER, SUPPLY & ASSET MANAGEMENT.

A. Among other things, I am responsible for gas supply and capacity management functions for South Carolina Electric & Gas Company ("SCE&G" or the "Company"). These responsibilities include procurement of gas supply and capacity, nominations and scheduling.

Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.

A. The purpose of my testimony in this docket is two-fold. First, I discuss SCE&G's portfolio of gas supply, addressing the various gas supply and transportation options available to the Company. Second, I address risk management in connection with natural gas prices and the operation of SCE&G's financial hedging program.

I. GAS SUPPLY.

Q. PLEASE EXPLAIN THE GAS SUPPLY OPTIONS CURRENTLY AVAILABLE TO SCE&G.

A. There are three gas supply options that are available to SCE&G: (1) wellhead gas supply, (2) underground storage, and (3) liquefied natural gas ("LNG"). SCE&G's gas asset portfolio includes each of these supply options, and the Company has combined these supply options with interstate transportation to meet its firm demand under varying weather conditions at reasonable cost.

Q. PLEASE DESCRIBE THE AVAILABLE INTERSTATE PIPELINE TRANSPORTATION OPTIONS.

A. SCE&G purchases interstate pipeline transportation capacity on both a firm and interruptible basis from the three (3) interstate pipelines that provide service to SCE&G: Southern Natural Gas Company ("Southern"), Transcontinental Gas Pipe Line Corporation ("Transco"), and Carolina Gas Transmission Corporation ("CGTC").

Interstate Firm Transportation ("FT") service permits SCE&G access to interstate pipeline transportation capacity on a priority basis. Interruptible Transportation ("IT") service is only available when FT customers, such as SCE&G, are not using their FT capacity. IT service is curtailed when FT customers use their capacity. In sum, FT and IT services use the same physical pipeline capacity, with FT service having priority. SCE&G contracts for FT

service from the three interstate pipelines serving South Carolina to ensure delivery of natural gas during colder periods when the full transportation capacity of these pipelines is used and when the demand for natural gas service is typically greatest. SCE&G currently holds 161,143 dekatherms ("Dt") of firm capacity on Southern and 64,652 Dt of firm capacity on Transco. In addition, SCE&G contracts for 314,529 Dt of firm capacity with CGTC in order to deliver gas from Transco and Southern and from SCE&G's in-state LNG facilities to SCE&G's system. Exhibit No. __ (JDK-1) provides a summary of the firm transportation contracts by pipeline supplier.

Q. HOW DOES SCE&G OPTIMIZE ITS FIRM TRANSPORTATION CAPACITY?

A. SCE&G optimizes its firm transportation capacity in several ways including the following:

- "Segmentation" allows SCE&G to deliver up to twice as much supply on a portion of its firm capacity while paying only one demand charge. Interstate pipelines allow segmentation as long as the delivery point meter has sufficient capacity and gas supply does not cross the same delivery point.
- SCE&G shares interstate transportation capacity in the amount of 27,000 Dt/day between its gas and electric departments pursuant to a Memorandum of Understanding ("MOU"), as previously approved by the Commission in Docket No. 2006-5-G. The gas department has the first

call on this capacity during the winter months and the electric department has first call on this capacity during the summer months. Under the MOU, 32.32% of the fixed capacity costs associated with the shared capacity amount is assigned to the gas department based on the relative numbers of customers served by the two departments as of the time the MOU was executed. The department transporting gas under the MOU is also responsible for all volumetric charges and costs associated with the gas transported, including any imbalance costs and or penalties.

Q. PLEASE EXPLAIN THE BENEFITS OF THE MOU TO SCE&G AND ITS CUSTOMERS.

A. The MOU is functioning as intended and is a beneficial tool to the Company and its customers. This arrangement promotes the efficient use of interstate transportation and storage capacity between the departments and reduces the cost included within the cost of gas factor. Moreover, prior to developing the MOU, the gas department did not have firm access to facilities allowing it to utilize gas supplied by the Elba Island LNG Facility located near Savannah, Georgia. In conclusion, the MOU allows SCE&G to use this additional source of natural gas supply to meet the reliability and service needs of its natural gas distribution system at reasonable costs.

Q. WHAT INTERSTATE STORAGE ASSETS ARE AVAILABLE TO THE COMPANY TO AID IN DELIVERING RELIABLE AND SECURE GAS SERVICE TO SCE&G CUSTOMERS?

A. The Company currently has 4,908,848 Dt of storage on Southern's system, with maximum daily withdrawal capability from this storage equaling 99,121 Dt per day at peak storage inventory. On Transco, SCE&G subscribes to 650,823 Dt per day of storage, with a maximum withdrawal quantity of 23,835 Dt per day at peak storage inventory. Exhibit No. ___ (JDK-2) reflects total storage and withdrawal capacity by pipeline supplier in a table format.

Q. PLEASE DESCRIBE THE LNG FACILITIES AND THEIR CAPACITIES.

A. SCE&G owns and operates two LNG facilities: one at Bushy Park near Charleston which can liquefy and store up to 980,000 Mcf of LNG, and the other at Salley, in Orangeburg County, which can store up to 900,000 Mcf of trucked-in LNG. LNG must be transported to Salley via truck because Salley has no liquefaction facilities.

Q. AT WHAT VAPORIZATION RATE CAN SCE&G USE THESE FACILITIES?

A. The combined storage capability of these facilities allows our system throughput planning to assume a maximum daily withdrawal quantity of 105,000 Mcf/day. For example, assuming that storage volumes are at maximum capacity, Bushy Park's inventory would be exhausted in approximately 16 days if operated at

a withdrawal rate of 60,000 Mcf/day, and Salley's inventory would be exhausted in approximately 20 days if operated at a withdrawal rate of 45,000 Mcf/day.

Q. WHAT BENEFIT DO THESE LNG ASSETS PROVIDE THE COMPANY?

A. SCE&G relies primarily upon its LNG assets to fulfill the peaking needs of its system and customers. Additionally, the on-system LNG service significantly adds to the reliability and security of gas supply during unfavorable operating conditions that may occur from time to time. For example, SCE&G's supply of gas could be unexpectedly interrupted because of a hurricane in the Gulf, or because abnormally cold weather creates a spike in demand which in turn causes equipment malfunctions, well freeze-ups, and other operational abnormalities thereby limiting the supply of gas into South Carolina. In these instances, SCE&G could employ the use of its on-system LNG facilities for a limited time to offset or reduce any adverse effects caused by an upstream interruption.

Attached hereto as Exhibit No. ___ (JDK-3) is a comparison of SCE&G's firm sales service to its capacity to deliver gas to serve firm demand. This exhibit indicates that the Company will have firm assets sufficient to provide an 8.28% operating reserve which is limited by the durational output of the LNG facilities.

Q. HOW DOES SCE&G UTILIZE ITS COMBINED INTERSTATE STORAGE AND ON-SYSTEM LNG TO ENSURE RELIABLE AND SECURE GAS SERVICE?

A. There are two dimensions to storage services: peak capability and duration. SCE&G uses its storage to address both of these dimensions. Certain storage services are geared toward providing large withdrawal quantities to meet spikes in demand on very cold days but only for a short period of time. The storage services in SCE&G's portfolio of this type include Transco LNG Storage Service and both the Bushy Park and Salley LNG facilities located on SCE&G's system. Accordingly, these storage services provide SCE&G with system reliability and peaking capability.

Other storage services are geared toward meeting demand over more of the winter period and not only on the coldest days. The storage services in SCE&G's portfolio of this type include Transco Washington Storage Service ("WSS"), Transco Eminence Storage Service ("ESS"), Transco General Storage Service ("GSS") and Southern's Contract Storage Service ("CSS"). Therefore, these storage services provide SCE&G with duration capability. Through the active management of these assets, SCE&G is able to meet the needs of its firm customers on the coldest days of the winter and over the entire winter.

Q. PLEASE DESCRIBE THE CONSIDERATIONS EVALUATED BY SCE&G IN ASSEMBLING ITS GAS SUPPLY PORTFOLIO.

A. The Company's evaluations for assembling its gas supply portfolio include reviewing the gas supply, storage, transportation, and other assets already under contract. Other considerations include such things as geographical delivery limitations, maximum volumes, storage ratchets, and the cost of the various services. SCE&G then compares the resources against the firm demand under varying weather conditions. Finally, the Company determines whether additional resources are required to serve the firm demand under varying weather conditions.

Q. PLEASE DESCRIBE THE USE OF EACH OF THESE VARIOUS SERVICES WITHIN THE PORTFOLIO.

A. SCE&G places different levels of reliance on its various supply sources based on the time of year in question. Each management decision related to the purchase of gas supply is based upon the best information available to SCE&G at the time its decisions are executed. During the winter heating season, the Company uses its wellhead gas as its principal supply, followed by the use of its natural gas supply stored in underground storage facilities. Lastly, SCE&G primarily uses its on-system LNG to meet the last increment of demand on the coldest days or hours of the year.

As the winter progresses, this order of usage may be modified. For example, if South Carolina experiences mild weather during the early part of the

winter and storage inventories are relatively high, then underground storage and LNG withdrawals may be used instead of wellhead supply.

II. HEDGING.

Q. BRIEFLY EXPLAIN THE ENVIRONMENT OF THE NATURAL GAS MARKET IN WHICH SCE&G PARTICIPATES AND PURCHASES ITS PHYSICAL SUPPLIES OF GAS.

A. The market in which SCE&G competes today for its gas supply is a global market which is dynamic and volatile, and volatility is influenced by many factors. Weather fronts moving into the United States, particularly in the northeast, impact the price of gas purchased for delivery in South Carolina. This price impact on South Carolina delivered gas can be traced in part to the fact that SCE&G purchases a portion of its gas supplies off Transco's system which serves both the northeast and southeast markets. Since gas supplies available into Transco's system must serve both markets, weather conditions in one market may impact prices in the other market.

Demand for gas is highly dependent upon the time of year and changes dramatically from season to season. For example, daily demand for supply by electric power generators in the summer can cause a gas utility to "go to market" on any given day for supply which may be equivalent to five or six times the summer firm load of the local distribution company. In summary, usage varies

significantly from summer to winter and also from winter to winter and summer to summer.

Q. WHAT EFFECT DOES THE VOLATILE NATURE OF THE NATURAL GAS MARKET HAVE UPON SCE&G?

A. As a direct result of price volatility, SCE&G can encounter extreme price changes in a relatively short period of time. This translates into unexpected price increases for its customers that may lead to (i) social and economic costs associated with higher utility bills and (ii) alternative fuel use and declining use per customer.

Q. PLEASE DISCUSS THE STATE OF THE NATURAL GAS MARKET DURING THE PERIOD UNDER REVIEW, WHICH IS AUGUST 1, 2009 THROUGH JULY 31, 2010 ("REVIEW PERIOD").

A. In 2008, the supply versus demand balance shifted from an extended period of a very tight supply versus demand balance to an oversupply situation. Unprecedented high prices from 2005-2008, provided additional capital for producers to increase their investment in new supply sources. This additional supply is largely a result of relatively new horizontal drilling technology allowing extraction of natural gas from shale deposits. This new technology allows producers to bring new supply to market in a very short time frame. While the shale plays produce smaller volumes than conventional wells, they are projected to produce for 40 – 50 years or more and require far less area to drill. As a result of this supply versus demand shift and resulting storage surpluses, prices remained in the $2.409 to $6.108 range for the Review Period. While prices remain relatively

low, there is always the possibility of short term price spikes in an ever-changing market which reflects why one invests in the protection provided by a hedging program.

Q. CAN THE IMPACT OF GAS PRICE VOLATILITY BE MITIGATED?

A. Yes. From the outset it is important to understand that SCE&G cannot eliminate or change gas price volatility. This is because gas price volatility is influenced by factors beyond SCE&G's control. SCE&G can, however, attempt to mitigate the impact of gas price volatility by seeking to reduce its exposure to gas cost risk. While there is no "best" approach to gas cost risk management, the impact of gas price volatility may be mitigated through the implementation of a financial concept known as "hedging."

Q. PLEASE EXPLAIN HEDGING.

A. As used in the natural gas industry, hedging is defined as the practice of initiating a position in the financial market in order to offset the price risk deemed to be associated with a company's position in the physical market.[1] Stated differently, hedging is a mechanism designed to mitigate the impact of price volatility.

Q. DOES SCE&G CURRENTLY OPERATE A HEDGING PROGRAM?

A. Yes. In Order No. 2008-546, dated August 8, 2008, in Docket No. 2008-5-G, the Company was authorized to use dollar cost averaging as its primary tool in its hedging program, and the Company adhered to this authorization in operating its hedging program during the Review Period.

[1] Derivative and Risk Management Glossary, Kase and Company, Inc.

Q. WHAT VOLUME OF NATURAL GAS HAS THE COMMISSION AUTHORIZED THE COMPANY TO HEDGE?

A. In Order No. 2008-546 the Commission authorized SCE&G to hedge up to twenty-five percent (25%) of estimated gas purchases for firm customers.

Q. DOES SCE&G ALWAYS HEDGE TWENTY-FIVE PERCENT OF ESTIMATED GAS PURCHASES FOR FIRM CUSTOMERS?

A. No. The Company may decide to implement hedges at levels lower than 25% based upon many factors including, but not limited to, market analysis, consultation with other market participants, and other publicly and privately available information.

Q. WHAT IS THE GOAL OF SCE&G's HEDGING PROGRAM?

A. The goal of SCE&G's hedging program is to mitigate the impact of extreme price fluctuations present in the natural gas market incurred by SCE&G and ultimately its customers in a cost-effective manner. This goal, however, should not be confused with costs savings. In fact, it should be noted that, while a hedging program is designed to protect against exposure to the highest gas prices, it will limit the purchase of gas at the lowest gas prices when gas prices are falling. The impact of price volatility is mitigated by SCE&G through the purchase or sale of financial contracts made available through financial markets such as the New York Mercantile Exchange ("NYMEX"). In addition to the direct benefit of mitigating price volatility, the hedging program provides the Company with an additional means to diversify its natural gas purchasing portfolio. The availability of different purchasing

tools provides the Company with varying options, which helps mitigate occurrences of volatility in the natural gas market.

Q. HOW HAS SCE&G'S HEDGING PROGRAM PERFORMED DURING THIS REVIEW PERIOD?

A. During the Review Period, the hedging program added approximately $10.7 million to the cost of gas. This addition to natural gas costs was created primarily by the remaining fixed price positions that the Company had entered into prior to making modifications to the hedging program which were approved in Order No. 2008-546. These fixed price positions added approximately $8.3 million to the cost of gas. As a result of the hedging program modifications, the Company purchases call options where the premium for any call option purchased is the lesser of or equal to: 1) 10% of current market price of natural gas for the month being hedged, or 2) the cost of an at-the-money call option for the month being hedged. An option is "at-the-money" if the strike price is the same as the current price of the underlying security on which the option is written. The strike price is the price the option holder must pay for the commodity if the option is exercised. The changes implemented with Commission approval are performing as expected.

As SCE&G stated in its testimony in Docket No. 2006-257-G, the benefits of a hedging program are not measured by whether there are additions to or subtractions from the cost of gas. The goal is to mitigate the volatility of natural gas market prices over the long run subject to the costs of operating the program.

As stated above, the natural gas industry is currently experiencing an oversupply situation due to the increase in domestic production coupled with a global recession. However, anything that disturbs this balance, such as hurricanes in the gulf, colder than normal weather in the winter, malfunctioning equipment which affects supply, or other such events may have dramatic and sudden upward impact on prices. This volatility to the upside is what SCE&G seeks to mitigate through its hedging program.

III. COMPANY'S REQUESTS.

Q. IN REGARD TO THE COMPANY'S PURCHASING PRACTICES, WHAT ARE YOU REQUESTING OF THE COMMISSION IN THIS PROCEEDING?

A. During the Review Period, SCE&G contracted for sufficient supplies of natural gas and provided reliable service to its customers. SCE&G also adequately maintained gas, storage, and transportation assets for its system during the Review Period at levels that were prudent and reasonably met the reliability and service needs of the system. It is my opinion that SCE&G's acquisition and management of these assets during the Review Period has been prudent and reasonable. Therefore, I respectfully request the Commission find that SCE&G's cost for gas purchases and asset management were reasonable and prudent for the Review Period.

Q. IN REGARDS TO HEDGING, WHAT ARE YOU REQUESTING OF THE COMMISSION IN THIS PROCEEDING?

A. With regard to hedging, I respectfully request that the Commission find that the Company prudently operated the hedging program consistent with Order Nos. 2006-679 and 2008-546 and recovered its cost through the cost of gas recovery mechanism approved by the Commission in Order No. 2006-679. No changes are proposed for the hedging program at this time, and the Company is continuing to operate the hedging program for the current period beginning August 1, 2010 under the terms approved by the Commission in Order Nos. 2006-679 and 2008-546.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

South Carolina Electric & Gas Company
Existing Firm Transportation Contracts

		Maximum Firm Transportation Dt/Day	Expiration Date
Southern			
FSNG349-46 FTNN	Firm Transportation	80,472	August 31, 2013
FSNG349-47 FT	Firm Transportation	44,078	August 31, 2013
FSNG349-4 FTNN	Firm Transportation	36,594	August 31, 2013
		161,143	
Transco			
Z1 - Z5	Firm Transportation	3,209	December 30, 2013
Z2 - Z5	Firm Transportation	4,720	December 30, 2013
Z3 - Z5	Firm Transportation	3,587	December 30, 2013
Z3 - Z5	Firm Transportation	7,360	December 30, 2013
Station 65 (Sunbelt)	Firm Transportation	39,606	October 31, 2017
Station 85 (Sunbelt)	Firm Transportation	6,170	October 31, 2017
		64,652	
Carolina Gas			
	Firm Transportation	17,600	October 31, 2011
	Firm Transportation	296,929	October 31, 2012
		314,529	

Note: The Transco and Southern systems interconnect with the Carolina Gas system at a number of metering stations. Supply transported using the firm capacity contracted for the Southern and Transco systems are, in most instances, delivered to SCE&G's delivery points by Carolina Gas. Thus, firm transportation capacity on the Transco and Southern systems cannot be aggregated with the firm transportation capacity on Carolina Gas to reflect accurately the firm transportation capacity available to deliver gas to SCE&G's customers.

INTERSTATE STORAGE AND LNG STORAGE

I. Interstate Storage

Pipeline	Type	Maximum Storage Quantity	Maximum Daily Withdrawal Quantity	Contract Expiration Date
Southern	CSS	4,908,848	99,121	August 31, 2012
Transco	ESS	18,886	1,877	September 30, 2029
Transco	ESS	154,049	15,468	September 30, 2029
Transco	GSS	26,365	503	March 31, 2013
Transco	WSS	447,938	5,270	March 31, 2011
Transco	LNG	3,585	717	October 31, 2016
Total Transco		650,823	23,835	
Total Interstate		5,559,671	122,956	

II. SCE&G On-System LNG (in mcf)

SCE&G	LNGS	1,880,000	105,000	

Note: All values are stated in Dt, unless otherwise noted

South Carolina Electric & Gas Company
Available Capacity to Serve Firm Sales Service Demand

	Reserve Capacity (Dt)
CGTC Firm Interstate Capacity	314,529
SCE&G Shared CGTC Interstate Capacity	27,000
Segmented CGTC Interstate Capacity	40,000
Total Capacity to Deliver Gas to SCE&G via CGTC	381,529
SCE&G's Peak Design Day Demand (Firm Sales Service to Customers)	378,538
Less: Direct Connect Firm Sales ServiceCustomers	26,198
Net SCE&G Firm Sales Service Customers behind CGTC	352,340
Reserve dts	29,189
Reserve %	8.28%